

**AMENDMENTS TO THE CLAIMS**

Claims 1, and 3-4, and 8-12 are pending in the application. Please amend claims 1, 8, 9, 10, 11, and 12 as follows:

1. (Currently Amended) A coronary probe for implantation in a vein of the coronary network for the stimulation of a left cavity of the heart, comprising:

a flexible hollow sheath having an internal conductor and a distal end;

an intermediate element, positioned at the distal end of the sheath, having a cylindrical body bearing a retention structure and a distal end wherein said cylindrical body further comprises a first diameter and a first axis at the median of the first diameter;

a probe-head, positioned at the distal end of the intermediate element, having a protuberance and at least one stimulation electrode that is electrically conducting and connected to said internal conductor, said stimulation electrode being positioned on said probe-head to come in contact with said vein;

wherein said retention structure further comprises:

at least one relief formed on the cylindrical body, said relief having an overall helicoid contour and a continuous ~~thread~~ ridge of variable radius extending around and for a length along the cylindrical body, said helicoid contour having a second diameter at the point where said variable radius is at a maximum, wherein said second diameter is greater than said first diameter;

a second axis formed at the median of the second diameter that is offset from, and parallel to, the first axis;

wherein said overall helicoid contour further comprises an eccentric contour, relative to the first axis of the cylindrical body, that is centered on the second axis at the point where the variable radius is at a maximum.

2. (Cancelled)

3. (Previously Presented) The probe of claim 1, wherein the second axis is offset from said first axis by a distance  $x$ , with  $x$  being selected from between 15 and 25 % of the first diameter of the cylindrical body.

4. (Previously Presented) The probe of claim 1, wherein the second diameter of the overall helicoid contour is comprised of between 1.5 and 2 times the first diameter of the cylindrical body.

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) The probe of claim 1, wherein the ~~thread~~ ridge extends in a nonjointed way around the cylindrical body.

9. (Currently Amended) The probe of claim 1, wherein the ~~thread~~ ridge extends around the cylindrical body over a number turns selected from between two to three turns.

10. (Currently Amended) The probe of claim 1, wherein the relief having an overall helicoid contour further comprises a first end and a second end and a nominal radius of the ~~thread~~ ridge, said nominal radius being a variable radius that increases and then decreases between said first and second ends.

**PATENT**

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11. (Currently Amended) The probe of claim 1, wherein the relief having an overall helicoid contour further comprises ~~thread~~ the ridge having a constant distance between the ~~thread~~ ridge turns.

12. (Currently Amended) The probe of claim 1, wherein the ~~thread~~ ridge further comprises a ~~thread~~ ridge having a round profile.